

REMARKS

Claims 32-45 have been canceled without prejudice or disclaimer. Claims 46-73 have been added and therefore are pending in the present application.

Claims 46-73 are supported by the original claims. In addition, the amino acids recited in claim 46, part (b) and claims 48-51 are supported by page 38, lines 10-11 and page 103, lines 8-9 of the specification; the % homology recited in claims 53-56 are supported by page 29, line 26 – page 30, line 32 of the specification.; the linker region recited in claim 64 is supported by page 24, line 32 – page 25, line 1 of the specification; and the C-terminal region recited in claim 69 is supported by page 25, lines 1-2 of the specification.

It is respectfully submitted that the present amendment presents no new issues or new matter and places this case in condition for allowance. Reconsideration of the application in view of the above amendments and the following remarks is requested.

I. The Rejection under 35 U.S.C. 103

The Advisory Claims maintained the rejection of claims 32-45 under 35 U.S.C. 103 as being unpatentable over Mendoza et al. (World J. Microbio. Biotechnol., 1994, Vol. 10:551-555) in view of Cuperus et al. (WO 95/35362). Specifically, the Advisory Action stated:

Applicants also argue that Mendoza et al. teach a mannanase which has a completely different N-terminal amino acid sequence when compared to the N-terminal amino acid sequence of the instant mannanase. While this may be so, Applicants continue to claim the enzyme in the alternative ... thus rendering the claim as anticipated or obvious over Mendoza et al. Furthermore, unless applicants tie down the N-terminal amino acid sequence limitation to all the enzyme claims, the instant enzyme reads on the enzyme disclosed by Mendoza et al.

This rejection is respectfully traversed.

Mendoza et al. disclose a mannanase from *Bacillus subtilis*. As previously mentioned, the Mendoza et al. mannanase has a different N-terminal amino acid sequence than the mannanase of SEQ ID NO: 2. However, this is not the sole difference between the Mendoza et al. mannanase and the mannanases of the present invention.

In Figure 4(a), Mendoza et al. show the effect of pH on the activity of the mannanase. In Fig. 4(a), the enzyme was incubated at 37° C for 10 minutes. The figure shows that the mannanase retains less than 60% of its activity at a pH above 8.

Mendoza et al. do not teach or suggest mannases that have a relative mannanase activity of at least 60% after incubation for 20 minutes at 40° C and any pH in the range of 7.5-10.


For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 103. Applicants respectfully request reconsideration and withdrawal of the rejection.

II Conclusion

In view of the above, it is respectfully submitted that all claims are in condition for allowance. Early action to that end is respectfully requested. The Examiner is hereby invited to contact the undersigned by telephone if there are any questions concerning this amendment or application.

Respectfully submitted,

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